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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/071,102

02/11/2002

Shigeru Tokita

2739

24956

7590

01/10/2006

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EXAMINER

TRAN, DZUNG D

ART UNIT

PAPER NUMBER

2638

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/071,102

Applicant(s)

TOKITA ET AL.

Examiner

Dzung D. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art, Figure 12 in view of Yamaguchi et al. Japan Publication no. 62-37463 and further in view of Lovejoy et al. U.S. Patent no. 5684308.

Regarding claim 7, Prior Art in figure 12 of present application clearly shows an optical transmitter, for coupling to communication devices though an optical divider/coupler (page 3 of specification), having a source outputting a drive current (Figure 12, element 101 and page 1 of specification), a light-emitting element (Figure 12, element LD and page 1 of specification), for outputting an optical signal to an optical fiber coupled to at least one of the communication devices, that is driven by the drive current for generating an optical output signal and, a modulator (Figure 12, element 109 and page 1 of specification), controlling the supply and cutoff of the drive current to the light-emitting element in response to an external supplied light on/off signal (Figure 12, element data, clock signal and page 1 of specification). Prior Art further discloses a

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flip flop circuit (same as claimed light emission cut off circuit) connected to the modulator 109 and a source voltage detector that monitors a source voltage (PD).

Prior Art, figure 12 of present application differs from claim 7 of the present invention in that Prior Art does not specifically disclose a circuit for comparing if the detected source voltage is lower than a predetermined voltage, it will cut off the supply of the drive current to the light-emitting element and wherein the source voltage detector comprising transistors of bipolar types.

Yamaguchi discloses a data link driving circuit having voltage detecting means 9 for comparing a source voltage with a reference threshold voltage and if the detected source voltage is lower than the predetermined voltage, it will cut off the supply of the drive current to the light-emitting element (page 5 of the translation of IDS reference of Yamaguchi). It would have been obvious to an artisan at the time of the invention was made to includes the teaching of Yamaguchi in the transmitter of Prior Art figure 12 of present application in order to control the output of the transmitter, thus it will prolong the life and the efficiency of the laser.

The combination of Yamaguchi and Prior Art does not disclose the voltage detector comprising transistors of bipolar types. Lovejoy discloses in Figure 2, a photoreceiver 10 comprising transistors of bipolar 14 (col. 4, lines 45-67).

At the time of the invention was made, it would have been obvious to an artisan to replace the voltage detector 10 taught by Lovejoy with the voltage detector in the combination of Yamaguchi and Prior Art. One of ordinary skill in the art would have been motivated to do that in order to provide a low impedance electrical connection to

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the photodetector as compared with other types of transistors, thereby improving a response time or speed of the photodetector and reducing a time constant. The bipolar transistors also provide a large frequency bandwidth for the photoreceiver to accurately replicate digital data provided optically to the photoreceiver (col. 4, lines 45-67).

In considering claim 8, Yamaguchi further discloses the power voltage is instantaneously cut off and the light emitting element is prevented from making an erroneous light emission if the monitored source voltage is lower than the predetermined voltage (page 5 of the translation of IDS reference of Yamaguchi).

Response to Arguments

3. Applicant's arguments with respect to claims 2-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung Tran whose telephone number is (571) 272-3025.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Vanderpuye Kenneth, can be reached on (571) 272-3078.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Dzung Tran

01/05/2006



KENNETH VANDERPUYE
SUPERVISORY PATENT EXAMINER